

CURRENT LITERATURE.

The Letters of Asa Gray.¹

Most of Dr. Gray's personal friends have known that his letters were being edited by his wife, and they have looked forward, with keen anticipation, to the appearance of the volumes which are before us. Nor will his most ardent lovers (for that phrase alone fitly names those who came to know him intimately) be disappointed in this collection, unless by its unavoidable fragmentariness. In his busier years the letters he wrote were necessarily largely scientific or of purely personal interest, but it has been Mrs. Gray's endeavor "in collecting and arranging the 'Letters' from Dr. Gray's large correspondence, to show, as far as possible in his own words, his life and his occupation." "Something of the personality of the man and his many interests may be learned from these familiar letters and from even the slight notes."

We can only wish that they might reveal fully his character and personality to those who were never privileged to come under its charm, but if only "something" of it is shown, the thousands who know his name will be interested in gaining these glimpses at the life of a rarely lovable man.

The autobiography which Dr. Gray began, and from which the sketch of his early years published with a portrait in this journal (11: 1. 1887) was chiefly drawn, forms the first chapter. His early undertakings are detailed mostly in letters to Dr. and Mrs. Torrey and his father and mother, with a few to Dr. W. J. Hooker. These give an account of his studies while teaching at Utica and Hamilton college, of his life in New York with the family of Dr. and Mrs. Torrey, which was a potent influence for good, of his relations to the South Sea Exploring Expedition and to Michigan University. The third chapter consists of extracts from a very detailed and intensely interesting journal of his first visit to Europe, where he made many life-long friends. The fresh and vivacious sketches of men and things, the racy comments, the epigrammatic skits hold the attention of the reader and, before his friends, the man lives again. The remainder of the volume tells of his work from 1840-1850.

The second volume is devoted to more general correspondence which is grouped almost by decades under the titles, second journey to Europe, letters to Darwin and others, travel in Europe and America, and final journeys and work.

¹Letters of Asa Gray, edited by Jane Loring Gray. 2 vols. crown 8 vo. pp. 838. pl. 6. Boston: Houghton, Mifflin & Co. 1893. \$4.00.

It is impossible to make any comment upon these volumes except in words of unstinted praise. The selection of appropriate parts from the enormous mass of letters written by Dr. Gray has been a difficult task, no doubt; but having been done by one who was for almost forty years in loving sympathy with him, it has been accomplished with the utmost good taste, in which it is in marked contrast with some other "Letters" of great men.

Three photo-gravure portraits of Dr. Gray are given, at the ages of 31, 57 and 76. There are also three half-tone engravings, of the botanic garden house in 1852 from a drawing by Isaac Sprague, Dr. Gray in his study in 1879, and the present range of buildings in the botanic garden. Nor must we fail to commend the very copious index, too commonly neglected in such books.

The younger generation of botanists, knowing Dr. Gray chiefly through his floras, have, we fear, come to think of him as a specialist, great in his line of course, but limited in his interest to systematic botany. We, therefore, cannot urge too strongly upon such the reading of these letters, that they may become acquainted with a man not only of commanding ability as a specialist, but of wide interest in other departments and keenest appreciation of them.

Some, we are sure, will be surprised at these words:

"I am lecturing [to his college class] in a popular and general way entirely on physiological botany, and offering no encouragement to any to pursue systematic botany this year. My great point is to make physiological botany appear as it should be,—the principal branch in general education."—p. 325. (1844.)

"I finished lichens this afternoon; and have next two lectures on fungi and spontaneous generation to give. I interweave a good deal of matter, such as, on ferns, the part they played in the early times of the world, à la Brongniart. Mosses filling up lakes and pools; sphagnum, peat. Lichens, first agents in clothing rocks with soil. I have noble illustrations of rust in wheat, ergot, etc., and Sprague is now hard at work on smut, à la Bauer."—p. 330. (1845.)

These volumes will be sure to contribute to a complete understanding of him who deserves better than Robert Brown the salutation, "Botanicorum facile princeps!" For the letters to friends, though written but for the hour, have become abiding because they are a true manifestation of a lovely character whose memory will ever be fragrant.

We adopt the happy phrases of Dr. Sandys, in presenting Dr. Gray for the highest honors of Cambridge University: "This man, who has so long adorned his fair science by his labors and his life, even unto a hoary age, 'bearing,' as our poet says, 'the white blossom of a blameless life,' him, I say, we gladly crown, at least with the flowerets of praise, with this corolla of honor."

Minor Notices.

MR. G. J. PIERCE'S interesting studies on the haustoria of some phanerogamous parasites¹ have been distributed in separate form. Mr. Pierce examined the haustoria of *Cuscuta Americana* and found them morphologically lateral roots, originating endogenously and growing only at tip, developing into an organ with bi-collateral vascular bundles united with those of the stem by two strands each of tracheids and sieve tubes. These tracheid and sieve tube strands unite with corresponding parts of the bundles of the host. The haustoria occur usually in groups of not more than the number of vascular bundles in the host; and by the twining of the parasite the successive haustoria unite with different bundles of the host. Other species of *Cuscuta* were examined with similar results. Having thus found sieve tubes (not previously known) in the haustoria the question arose, do all phanerogamic parasites possess them, and are they thereby able to absorb the newly elaborated material from their hosts? The study of haustoria of *Viscum album*, *Brugmansia Zippelii*, *Rafflesia Patma* and *Balanophora elongata* showed that sieve tubes were absent in the green parasite, *Viscum*, but present in those which must, because of the absence of chlorophyll, depend wholly on their hosts for nourishment.

THE VERY LARGE private herbarium and library of Capt. John Donnell Smith, consisting of about 80,000 sheets and 1,300 volumes, has been offered to Johns Hopkins University on condition that a suitable building be prepared for their reception and provision be made for their maintenance in connection with a department for instruction and original work in botany. We long since understood that this intention was cherished by Mr. Smith, and we trust that the generous offer will stimulate the University to establish a thoroughly manned and equipped botanical department, to which Mr. Smith's accumulations may be of service. A list of the chief collections comprised in the herbarium and abbreviated titles of the works in the library are published in the J. H. U. *Circulars*, No. 109, Jan. 1894, in order that students (to whom they are already made accessible) may know what is to be found there. We hope that Mr. Smith may long continue his enthusiastic investigations and add greatly to this important herbarium.

THE SEMI-ANNUAL report (Oct. 1893) of Schimmel & Co. (Fritsche Bros.) of Leipzig and New York, who are special distillers and manufacturers of essential oils, is something more than a mere trade pamphlet. A large amount of information, both botanical and chemical,

¹Annals of Botany 7: 291-327. pl. 13-15. 1893.

is given in the first 67 pages, about various essential oils. This is followed by a table of the essential oils, giving the name of the oil and the part of the plant from which it is obtained, the botanical source, the percentage yield from the raw material, with various physical and chemical observations. The publication would be of interest to botanists generally, we think. It may doubtless be obtained from the New York house on application.

IN THE "Wilder Quarter-Century Book," a collection of original papers dedicated to Professor Burt G. Wilder, at the close of his twenty-fifth year of service in Cornell University, by a number of his old students, appears a paper on the genus *Phyllospadix*, by Professor W. R. Dudley. This genus of marine Potamogetonaceæ consists of two species growing on our Pacific coast, and is believed by Prof. Dudley to be a comparatively recent offshoot of *Zostera*. This paper deals "with the morphology, anatomy and environment of the genus in relation to its probable origin."

A FIFTH PAPER preliminary to a monograph of the Laboulbeniaceæ, necessitated by the accumulation of new material, has been published by Dr. Roland Thaxter.¹ Thirteen new species and five new genera are characterized and a synopsis of the 23 genera and 122 species now known is given.

M. HENRY L. DE VILMORIN, whom many American botanists met last summer, has distributed a reprint of an article on the flowers grown in the French Riviera,² the beautiful sunny shores of maritime Provence. The article will be of especial interest to lovers of flowers.

MR. B. FINK, of the Upper Iowa University, Fayette, has published a small pamphlet with the title "Blights, Orchids and Ferns at Fayette, Iowa." The first group is presented with key and descriptions; of the others but brief lists are given.

DR. WM. A. SETCHELL has distributed copies of a paper on the classification and geographical distribution of the Laminariaceæ, published in *Trans. Conn. Academy* 9: 333-375. 1893.

E. M. WILCOX publishes in the *Jour. Cin. Soc. Nat. Hist.* for July-Oct. 1893. pp. 101-4, a few brief notes on the histology of the stem of *Pontederia cordata*.

¹Contrib. from Crypt. Lab. Harvard Univ. XXI. New genera and species of Laboulbeniaceæ, with a synopsis of the known species. *Proc. Amer. Acad.* 29: 92-111. 1893.

²*Jour. Roy. Hort. Soc.* 16: 80-104. 1893.